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CERTAIN RARE WEST-COAST BASKETS

By H. NEWELL WARDLE

THE basketry of primitive peoples, though one of the latest subjects to attract the attention of the ethnologist, is now recognized as well worthy of the closest study. Not only does it frequently represent the highest artistic expression of its maker, but it may point the way to important ethnologic conclusions. Its evidence is weighty, though never final, since today the dismemberment or forced association of kindred and of alien tribes on reservations, and the arbitrary demands of the white trader, are making sad havoc with this native art, while even in prehistoric times intertribal contact, in war, trade, and friendship, gave to local varieties a wider distribution. This latter, the natural increasing range of the basket—whether as loot, merchandise, or gift—is a valuable indicator, and opposed to the modern and wholly vicious artificial transplanting of types. The present limited knowledge of the older basketry renders important the publication of accurate descriptions of every genuine old specimen. The five which form the subject of this paper have been selected from the collections of The Academy of Natural Sciences of Philadelphia as differing, in one way or another, from any basket previously described.

The small covered basket (pl. XVIII, *a*) came to its present abiding place more than thirty years ago. It is unquestionably a Tlingit product, and is assignable to Emmons' type 16.¹ It exhibits the characteristic shoulder of the jar-shaped *qwutle-qwut* ("round or egg-like belly"), while the lid is surmounted by the rattle from which type 14 takes its name, *tudar-huck* ("noise inside"). More squat

¹ G. T. Emmons, The Basketry of the Tlingit, *Mem. Amer. Mus. Nat. Hist.*, vol. III, p. 255. Whether the lid to type 16 carries the rattle as does that of type 14 is not stated, but from the specimen figured by O. T. Mason (*Smithson. Inst. Ann. Rep.*, 1902, U. S. N. M., p. 67) it evidently has this characteristic.

in appearance than the jar figured by Emmons, the Academy's basket reaches only 81 mm. (c. 3.2 inches) in height, lid included, while its greatest diameter is 116 mm. (c. 4.6 inches).

The weave of the bottom is mostly the *khark-ghee-su't* ("between") or alternating two-strand twining and wickerwork, while the remainder of the basket shows only the regular *wush-tookh-a'r-kee* ("close together work") or two-strand twining, and is finished at the edge by trimming the warp. Into this basic fabric of spruce-root is woven the false embroidery or overlay twining of grass—the *uh-tah yark tu-twage* ("outside lifted up and put round").¹

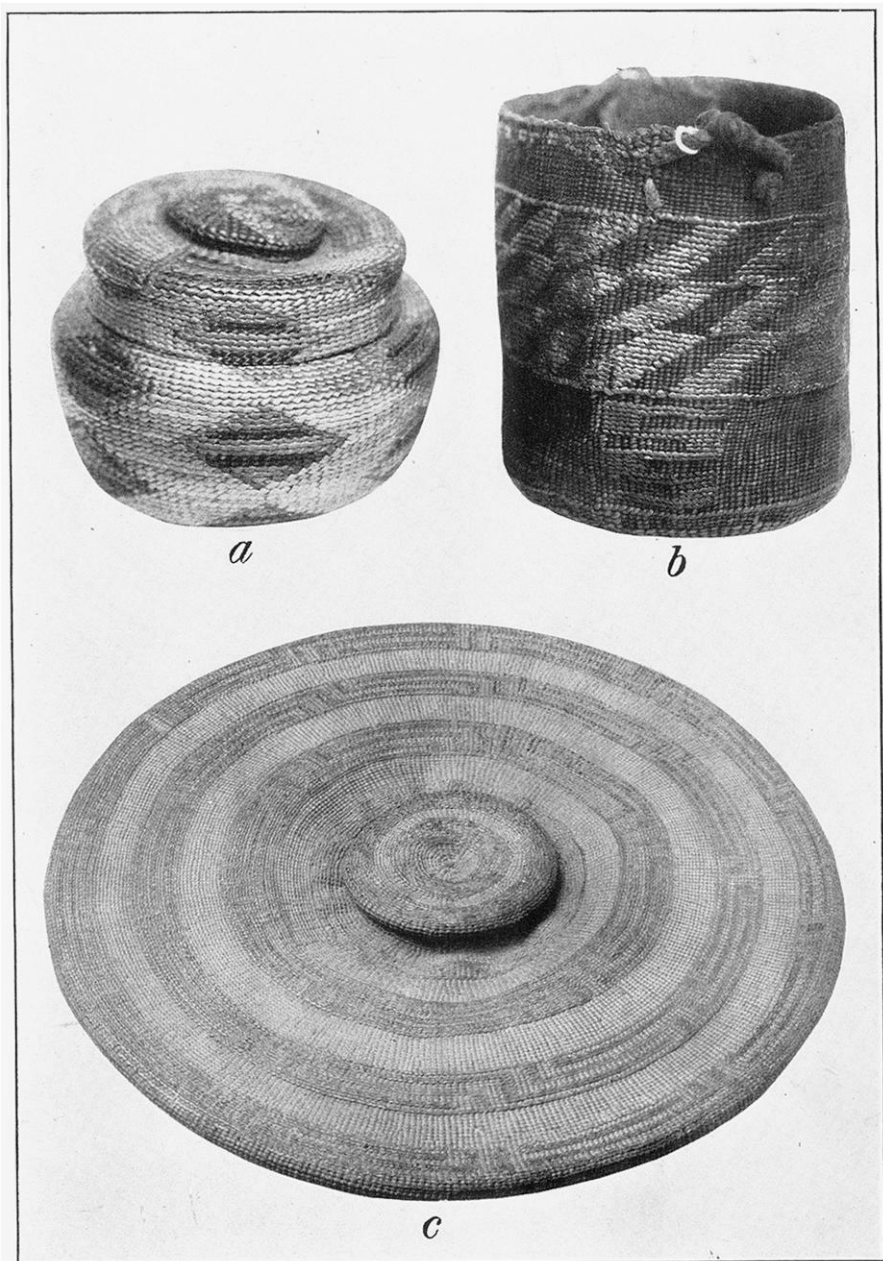
The embroidery begins where the warp turns up to form the side of the jar, and ends at the basal line of the neck. The design of the body, which is continued onto the rim of the lid, presents, when the latter is in place, six vertical rows of lozenges,—two and a half to the row,—each outlined by skipping two consecutive stitches in the overlay, thus permitting the dull-brown spruce-root twining to appear on the surface. Within this outline the false embroidery is continued—no longer in the sheeny pale straw of the *kha'kar shark* ("true straw"), but in a deeper, more brownish shade,² intersected by two longitudinal bars of black, each two rows of stitches in breadth.

The lid is surmounted by the ingenious closed chamber, containing the little pellets, whose rattle recalls to the native mind the sound of shifting pebbles on a shingle beach. This knob, 45 mm. (c. 1.8 inches) in diameter, is embroidered in the graceful fern-frond pattern (design 43, "the young fronds of the fern as they come up from the root and curl round"),³ in two colors—the pale straw and the deeper shade forming the alternate fronds on the dyed spruce-root ground. The only portion of the spruce-root twining that is not in the natural color is this central or upper face of the knob. In all probability it was originally dyed red, though its hue is now dark-brown with only a suggestion of ruddiness. The

¹ Emmons, op. cit., p. 242. Also O. T. Mason in *Bull. 39, U. S. N. M.*, part P, fig. 28.

² The straw may be the same, but, if so, it has certainly been dyed and has faded. Its luster is not so high.

³ Emmons, op. cit., p. 276.



a, COVERED BASKET, TLINGIT (Haldeman collection, A. N. S. P., No. 11477). *b*, BERRYING BASKET, TLINGIT (Schäffer collection, A. N. S. P., No. 11473). *c*, EMBROIDERED HAT (A. N. S. P., No. 11478)

three series of stitches forming the neck of the knob, and the three rows of the lid proper appearing just beyond the line of junction and under which the warp-strands of the former are inserted, are in ordinary twined weaving of uncovered spruce. Beyond this, the overlay recommences in solid blocks of pale straw, relieved by the "footprints of the brown (black?) bear" (Emmons' design 6).¹ Each of the three footprints is outlined in the dull spruce-root of the basal fabric, and within this lining of uncovered weft the overlay recontinues in the deeper shade and black, forming alternate bars, each two stitches deep.

At the base of the footprint series the warp-strands turn sharply down to form the cylindrical rim, and here the motif of the basket itself recurs in a series of alternating diamonds and triangles—the latter probably considered by the maker as the "half of the head of the salmon-berry," though in reality nothing more than a potential lozenge. This identity of motif on the body of the basket and the rim of its lid is in accordance with the Tlingit custom and serves as a recognition mark.

In form, weave, embroidery, and in two of the three elements of its ornamentation, the basket is characteristically Tlingit. It is unusual, though by no means unique, in the absence of strongly marked bands. Its peculiarity consists in the treatment of the lozenge, or "eye", which forms the decorative feature of the basket body and reappears on the rim of the lid. I know of no other Tlingit basket in which the lozenge is intersected by horizontal bars, and in this case it seems probable that the concept of the completed basket, with the barred footprints of the brown bear upon the flat surface of the lid, reacted upon the body motif, the "eye", to produce a design more realistic and harmonious. Yet it may well be that this is not an individual characteristic, but a lost or hitherto unrecorded pattern, and, as such, bears its special Tlingit designation.

A second art product from the same culture province is the *tam-o'-shanter* shaped hat figured on plate XVIII, *c*. Its greatest diameter is 419 mm. (*c.* 16½ inches). The head-band measures

¹Emmons, *op. cit.*, p. 265. Is the word "black" in the explanation of pl. v, fig. 5, merely a misprint for "brown"?

597 mm. (c. 23½ inches) in circumference and is 65 mm. (c. 2½ inches) in height. The hat is woven in the ordinary two-strand twining of the Northwest coast, with the stitches driven home so close and hard as to give a beautiful beaded appearance to the fabric. The edge is finished with the three-strand border (Emmons' border type 5)¹ frequently used for hats. The material is spruce-root, upon which an overlay is applied in concentric bands of "false embroidery" in straw of a rich golden-brown hue. The flat, button-like elevation of the crown, 108 mm. (c. 4.3 inches) in diameter, carries on its surface two bands of the "leaves of the fireweed" pattern.² The rhomboidal leaves are turned in opposite directions on these bands.

Then succeeds, around the slightly constricted, almost vertical neck of the knob, a series of solidly embroidered rectangles,³ delimited above and below by a single embroidered line—"cross-bar of the drying frame"⁴ as shown in the figure. Beyond this constriction, the



broad flare of the upper surface presents four spaced, concentric bands of embroidery. The innermost of these repeats the fireweed motif, the leaves being directed in accordance with those of the first circle. The remaining three, in conformity with the three worked bands of the piece's inferior aspect, show the well-

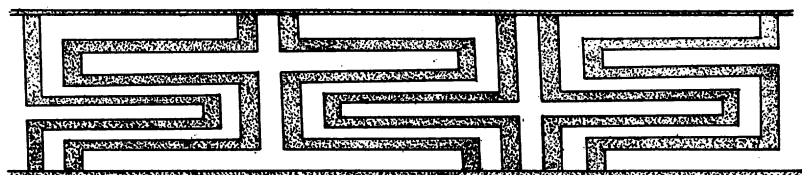


FIG. 27.—Design on hat-band. (A. N. S. P. no. 11478.)

known "shaman's hat" pattern.⁵ The deep hat-band below is decorated with a variant of the "tattoo" figure⁶ (fig. 27).

¹ Emmons, op. cit., p. 246.

² Ibid., p. 266, design 10.

³ Possibly these blocks form nothing more than a variant of the fire-weed motif, though unnoted in Mr Emmons' text. See his plate xi, fig. 6.

⁴ Emmons, op. cit., p. 269, design 20.

⁵ Ibid., p. 274, design 36.

⁶ Ibid., p. 273, design 35.

Unlike the example of this pattern figured by Mr Emmons,¹ the tattoo does not alternate with the simple "cross." In its individual parts it is rather an abbreviation of the old tattoo mark on the thumb than a variation of that on the metacarpals of the fingers.

The result of the juxtaposition of paired units is, however, noteworthy, since the included figure thus produced is not, strictly speaking, the "cross," neither is it the tau-shaped ceremonial war-club nor its doubled art-form **I**. A closer inspection will, I

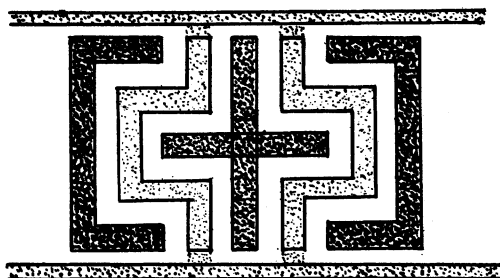


FIG. 28.—Raven-tail design, after Emmons' variant *b*, showing modification to cross design.

believe, reveal its connection with the "raven-tail" pattern.² Compared with that motif, it shows itself as the negative of a flattened and elongated but less ornate form of Mr Emmons' variant *a* of design 31 (figs. 29, 30).

In the actual tattoo mark, the bars on the wrist, the double series of triple lines of dots on the forearm, which complete this personal decoration, show it to be a much conventionalized representative of a very ornate figure. In basketry this motif is always presented in double lines. So, too, the raven pattern exhibits line within line to the last degree of complication, and is (barring designs of modern introduction) practically the only motif of which this is true. Is all this mere chance? There is perhaps no more unstable and treacherous foundation on which to base the pillars of a psychic bridge than basketry design. And yet what is—or rather, was—

¹ Op. cit., pl. XII, 4. I am by no means convinced of the correctness of the identification of the cross, even in this instance, so long as it remains uncertain that the tattoo-cross explanation of the design on this basket was given by its maker. Individual license is broad, the tendency to experimental originality great. The slightest lengthening of a single recurrent line of variant B of the raven-tail pattern (loc. cit., p. 272) will, when placed between the characteristic delimiting lines—"cross-bars of the drying-frame"—produce a figure identical in outline with the embroidered bar on this basket. (Fig. 28.)

² Emmons, op. cit., pp. 272-273, designs 30, 31, and 32.

the symbolism of this figure, tattooed upon the back of the hand of some of the elder members of the tribe? If a connection be admitted between the tattoo mark and the raven, as this instance would tend to suggest, an hypothesis explaining the *raison d'être* of the tattoo mark is not far to seek. Not only is there a Raven clan,¹ but this bird assumes a paramount place in the daily life, the art, and the mythology of the whole people. Only one basketry design, it seems, bears the significant title *shon ghe-kulth kah ka'tch-ul-tee*, "old person's hand back of tattooed", and the original

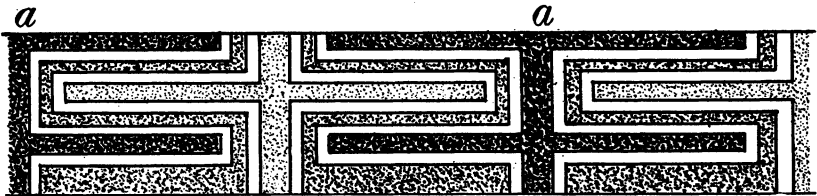


FIG. 29.—Differentiated negative of design on hat-band, showing relationship to raven-tail design in fig. 30.

of that motif Mr Emmons has succeeded in discovering upon a single individual. But the former fact, while strongly suggestive, does not in itself force the conclusion that this was the sole symbol tattooed in ancient times. The Wolf clan may also have possessed its distinctive mark, yet to be discovered.

But, leaving aside this speculation, if the tattoo mark had no reference to the clan of the raven (since Mr Emmons declares it lacking in totemic significance, and merely a mark of distinction),² what better, more forceful way to express that tribal rank than by the symbol of the great god Yehlh, the raven?

Let me go one step farther and inquire as to the relation of the "raventail" motif to the individual from which it takes its name. Mr Emmons states: "In the minds of the people, it is unconnected with the preceding figure [the cross of the orthodox Russian church]. It seems to be purely symbolic in character, and bears no trace of resemblance to the natural object." By reason of his ancient office of "thunderbird," from which the eagle seems now to have dis-

¹ H. H. Bancroft, *Native Races of the Pacific Coast*, vol. 1, p. 109.

² Emmons, *op. cit.*, p. 273.

possessed him, Yehlh, the raven, was ruler of the winds, and hence of the four quarters of the world. May I then suggest that in this conventional and ornate figure there survives the Tlingit cosmic symbol of the universe, with the cross of the winds in its center? Perhaps it is not mere chance that the apparently most complete, though by no means the most elaborate, of the three variants figured by Mr Emmons consists of the central cross and six enclosing borders, thus producing the cosmic seven which has entered so

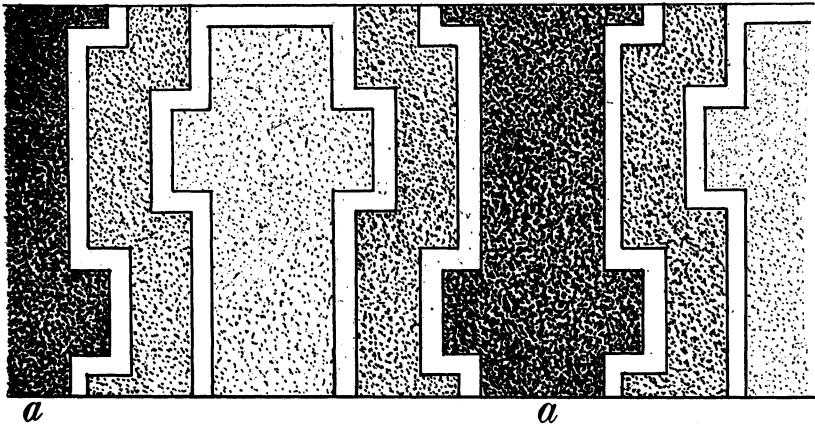


FIG. 30.—Raven-tail design, simplified after Emmons' design 31a.

largely into the esoteric thought of primitive peoples in the New as well as the Old World.

The hat above described appears to be very old, and was received by the Academy at some unknown date prior to 1876. It is peculiar both in decoration and form. Except in the matter of patterns arising from technique,—the skip-stitch, "hood of the raven,"¹—the ornamentation of the Tlingit hat is produced by painting and not by embroidery. The example under discussion shows no vestige of paint, and, as stated above, is embroidered in rich golden-brown straw, and in designs typical of the art of this culture province. No other West coast hat of this form has been described, and the question unavoidably presents itself: Is this a genuine native creation, or a native copy of some foreign head covering?

¹ Emmons, *op. cit.*, p. 241. Weave 3 and p. 268. Design 16.

To the student with a bias toward acculturation theories, the braid bonnet of some Scotch fur-trader immediately suggests itself as a model for imitation in straw—an ordinary sailor's hat would not explain the knob in the center of the crown.¹

The alternative—a purely native creation—is one that may well be defended. Any study of the Tlingit head-covering involves an inquiry into the meaning and origin of the *khuke*, the tall ceremonial hat so conspicuous in their carvings. Its most striking feature is the series of woven cylinders rising above the truncated cone—a species of insignia of rank. Their origin is, I believe, unknown. In the lid of the little *tudar-huck* (pl. XVIII, *a*) occurs a similar cylindrical elevation, but in the covered work-basket the esthetic *raison d'être* of the hollow chamber is obvious. Although apparently no evidence, linguistic or otherwise, is available for the proof, I strongly suspect that, in native thought, the lid of the *tudar-huck* basket is regarded as its covering or hat, and it is quite possible that this little sounding basket lid preserves an earlier form and meaning of the excrescences on the Tsimshian ceremonial hat—a rattle. The multiplication of the cylinders, one above another, in a wholly natural attempt to express added dignity and importance, induced the retention of the cedar-block model as a guaranty of rigidity. This would, of course, abolish the rattle, the appeal for distinction being transferred from the ear to the eye. If this suggestion for the origin of the *khuke* type be accepted, the hat under consideration would then be seen to exhibit only the vestigial remnant of the original organ—the button-like elevation, open within, being neither a rattle, like that of the basket lid, nor a cylinder of the ceremonial hat.

It is evident that there is something to be said in support of an uninfluenced American origin, as well as in advocacy of acculturation.

In brief, the case stands thus: On the one hand, the specimen has a strong resemblance to a tam-o'-shanter magnified in straw;

¹ Dr C. Hart Merriam was inclined to see in it a copy of an old Russian hat, but I have been unable to find any Russian head-covering at all resembling this Tlingit piece, in any work on European costume.

on the other, a more flat hat was formerly in use on the Northwest coast; a basket rattle is still occasionally met with there; the *tudar-huck* was capped with a lid, bearing a flat cylindrical rattle; the cylinders of the ceremonial hat may be regarded as so many rattles, which, for technical reasons, no longer function; the Academy's Northwest coast hat is broad and flat, is surmounted by a hollow chamber, shaped like the rattle upon the basket lid, but open below like the *khuke* cylinders. Though the evidence is probably not all in, I trust the defence may be deemed strong enough to warrant a rendering of the old Scotch open verdict—acculturation “not proven.”

Among the Tlinkit baskets forming a part of the collection of the late Dr Charles Schäffer, presented in recent years to the Academy, is one which calls for special mention (pl. XVIII, *b*). It is a *sahk-kah to'n-nar*, or small berrying basket (Mr Emmons' type 1) of spruce-root, dyed brown or weathered dark by age, and embroidered in natural and in golden-brown straw. Its rich tones are conspicuous among the gay hues of the more modern baskets. Dr Schäffer obtained it in 1888 in the neighborhood of Fort Wrangel, and it appears of considerable age, having undoubtedly seen service.

The basket has a height of 125 mm. (c. 5 inches) and a diameter of 107 mm. (c. $4\frac{1}{4}$ inches). Two loops of twisted deer (?) skin, placed upon opposite sides, serve for the attachment of the neck-cord. The border, a variant of Mr Emmons' border type 7, is produced by grouping the warp-strands into bundles of two and turning them down on the inside under the next weft-stitches, which, in this final series, are heavier and of twice the usual length.

Below this selvage, a line of embroidered dots is to be seen. The chief decoration consists in three bands of “leaves of the fireweed” separated from each other only by the single line, “cross-bar of the drying-frame,” by which also they are flanked above and below. Beneath this triple band two examples of the thumb “tattoo” pattern are placed, one upon each side of the basket, below the above-mentioned suspension loops. These latter figures are in the darker, richer shade of the straw.

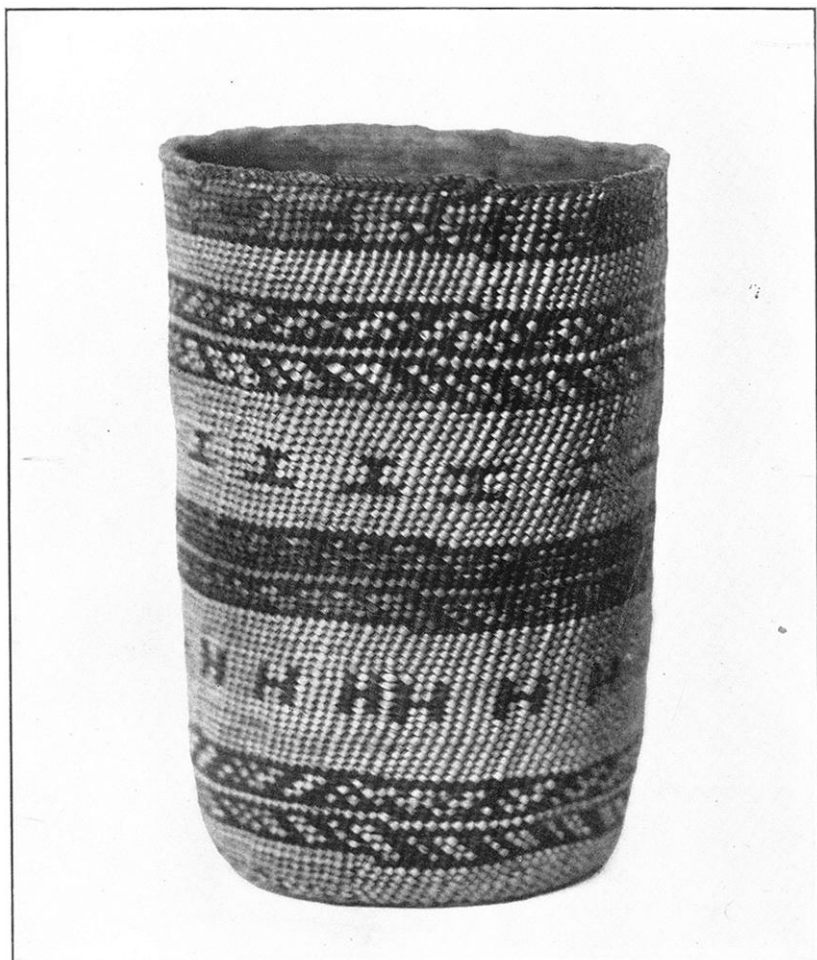
It remains to mention the peculiar feature of this small utensil.

The weave is a two-strand twining, but the direction is *from right to left*, while the stitch passes over and down to the left on the outside, then inward. It will thus be seen to be the ordinary Tlinkit "close together" weave, reversed in trend while the technique remains the same. This left-handedness of the maker (for that I assume it to be) has had the effect of reversing the slant of the woof-stitch, and, in consequence, that of the embroidery stitch as well. Though strongly and closely woven, there is a notable undulation of the stitch series and a lack of perfect symmetry in the basket's contour which seems not wholly due to warping. The selvage, too, while it does not lack strength, has a hummocky appearance, which indicates rather *gaucherie* than lack of care.

In marked contrast to this last is the exquisite little grass cup (pl. XIX). It is 101 mm. (c. 4 inches) high and has a diameter of 70 mm. (c. 2¾ inches), being cylindrical in form. The basket is not embroidered save in a single circumplexion marking the circumference of the bottom, the designs being wrought in the weft itself and consequently reappearing, in large part, on the less finished interior.

The warp element is so minutely divided and so closely covered as to leave its nature in doubt. The woof materials are a fine pale straw-colored grass, and, if I am not mistaken, the stem of the maidenhair fern. Whether any other grass enters into the wefting is uncertain: at least two other shades appear along with the pale straw color and the lustrous blue-black of the above-mentioned elements—a reddish brown and a yellow of a deeper hue—but, of these, the latter is probably due to dyeing the pale grass, and the former tones off into the purple-black of the stipe and may result from its natural range of tint. No difference of texture is distinguishable.

Three weaves have been employed in the creation of this masterpiece. The greater part is in wrapped twining. Three-strand braid or twining marks the transition from bottom to side, and in certain of the ornamental bands a combination of wrapped twining with *tee*, or lattice twining, occurs. The work proceeds from left to right. The number of stitches averages no fewer than six to the



GRASS CUP, LOWER VALLEY OF COLUMBIA RIVER

Haldeman collection, A. N. S. P., No. 11482

centimeter. Owing to the fineness of the weave, and an unusually heavy stitch of the root warp which crosses the center of the bottom, it has been found impossible to determine the manner in which the basket is commenced. Whatever that style may be, certain it is that the wrapped twined weaving makes its appearance as early as in the second series of stitches. The secondary or coil-warp strand,¹ which lies internally to the radiating primary strands, seems of the same root material as they. The lashing woof is pale straw.

Before reaching the circumference of the bottom, the first decorative motif is introduced—an **H**-shaped figure in black. Short lengths of fern-stem are used for the six figures, the stipe, after making its first turn to the exterior of the fabric to form the left leg of the **H**, is carried along internally to the secondary warp and wrapped with the pale weft element for three stitches, until needed again, then brought to the surface to form the second leg of the figure. Occasionally the thread continues along the back of the coil-warp strand and reappears in the succeeding figure. The pale straw is continuous, even in the circumplexion, wherein occurs the central bar of the **H** figure, for there it backs the coil-warp and so is wrapped with the fern-stem.

The boundary between bottom and side is marked and strengthened by the addition of two strands of the same fiber as the warp, the utilization of the coil-warp as a weft element alternating with the new strands in a three-ply twining or braid—the two being indistinguishable in a finished basket—and the employment of the grass and fern-stem as an overlay embroidery, three threads (one dark and two light) being used to face the fiber, their presence in the interior of the basket being detectable only along the edges of the short stitches of the interior aspect of the three-strand braiding of the fiber. Above this single circumplexion the wrapped twining recommences and continues into the lowest row of the first orna-

¹ As this strand is not of the grass, but of the same fiber as the radial warp, it would seem correct to consider it not as woof but as part of the warp, united by a single weft-strand, in place of the two weft-strands as in the *tee* weave. For this secondary warp element I suggest the name *coil-warp*. This coil-warp is used as a weft in only two places—the boundary line between bottom and side, and in the construction of the selvage.

mental band. This black band (fig. 31, *a*) is bisected horizontally by a line of pale straw. Within its divisions, thus formed, a pleasing arrangement of double and single diagonal lines is woven in pale straw. These dip at opposite angles, converging toward the left, and are unevenly spaced, being separated now by one, now by two,

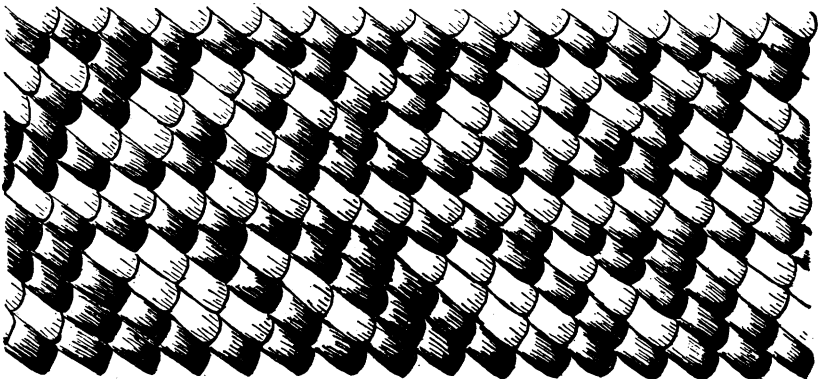
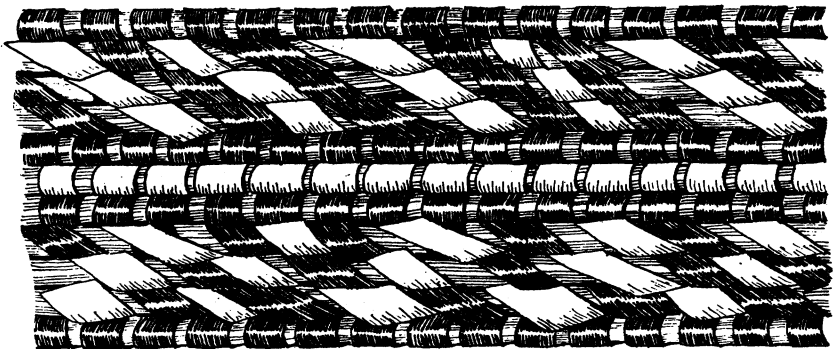
*a**b*

FIG. 31.—(*a*) Exterior and (*b*) interior of ornamental band on basket cup.
(A. N. S. P. no. 11482.)

stitches of fern-stem, but nevertheless corresponding in the upper and lower halves of the band.

The technique whereby these diagonal bars are produced is a combination of bird-cage and lattice-work, and may be best understood by reference to the illustration (fig. 31, *b*). The *tee* stitch is employed where straw and stipe succeed one another; the wrapped

twining is used wherever two consecutive stitches of the same color are desired. The vertical stitches of the latter show but rarely on the interior of the basket, being overlaid by the alternate thread, carried along diagonally to its next outward turn. The inner face of this portion of the band thus presents only slanting stitches in alternate colors and varying lengths. The secondary, or coil-warp, strand is often visible in their interstices, and the basket-wall is perceptibly thickened by the additional lashing. The center and margins of the ornamental band are in the ordinary wrapped twining.

Eight rows above this band, a second series of **H**-shaped figures commences. Their construction does not essentially differ from their homologues on the bottom. Both the red-brown thread of the figure and the pale straw of the pseudo-background, when not in use, are continued under the lashings of the other element, except at the crossbar of the **H**, where the light thread is carried in long stitches over the vertical inner turns of its alternate.

The second ornamental band corresponds in design and weave with the first, but the pale straw is replaced by a light amber and the purplish black by a red-brown tone.

The succeeding light field is broken by a new motif. The first of these figures completed by the textile artist—that lying immediately to the right of the transition line¹ of weave—is a recumbent **I** identical with the upright figure previously described, but this would appear accidental, for, in all of the remaining thirteen individuals, the upper horizontal line has been shortened by one stitch at each end, and the result is **I**. The figure is in red-brown, and is woven in the same way as the **H**.

A third ornamental band, of the same weave and pattern as the bands previously mentioned, begins in red-brown tones, but its central and upper portions are in the lustrous purple-black. The median line and diagonal bars are, like those of the first band, in pale straw. While the general aspect of the design in all three

¹ I am not aware of any designation now in use for this well-marked line from center to circumference, which indicates the completion of each row—a circumplexion—and consequently the transition from one figure to the next.

bands is the same, the second and third lack that close adherence to symmetry in the parts above and below the median line which characterized the earliest example.

Immediately below the selvage, against a pseudo-background of light amber, sixteen little black "dogs" turn their noses to the right and plant their legs upon a single line of fern-stem stitching. These tiny creatures have the simplest outline imaginable. The designations "dog" and "horse" are given by natives to similar creatures on modern baskets, but these might be deemed any quadruped of the Pacific watershed. They are built in the combination wrapped twining and *tee* previously described.

The basket finishes in a selvage produced by a row of two-strand twining of the same substance as the warp fiber, probably in part a continuation of the secondary or coil-warp. The end of each vertical warp-strand is bent outward, then forward and downward, crossing the face of the next warp-strand, whereupon it passes under the two-ply twining, by which it is held down, and penetrates between the warp-threads to the interior, where it is trimmed close. The result is a strong and pretty border of false braid (fig. 32, *a, b*).

This little cup was collected by Thomas Nuttall, the botanist, in his famous trip across the continent in 1834, and given by him to Mr S. S. Haldeman in 1836. On the latter's death it was presented to the Academy. Its tribal affinities will be discussed in connection with the basket wallet, next described.

A fifth basket from the West coast of America, meriting especial attention, is a flat bag or wallet (pl. xx, *a, b*), rectangular in form, and having a length of 405 mm. (*c.* 16 inches) and a depth of 254 mm. (*c.* 10 inches). The greater part is in ordinary two-strand twining of cedar (?) root upon a warp of the same fiber, though in no spot except the first line of sewing at the bottom and the selvage at the top does the material of the basal fabric appear upon the outer surface. I say in greater part, since, in the production of two of the ornamental elements, the textile artist has seen fit to change the technique, substituting a special modification of the bird-cage or wrapped twining for the usual twining; but this will receive consideration under the head of embroidery, since it is the decorative motif that has forced the change.



BASKET WALLET—A, OBVERSE; B, REVERSE

A. N. S. P., No. 11483

Unlike the Nez Percé basket wallet described by Professor Mason,¹ the vertical warp-strands are not continuous over the lower edge of the basket to form the sides, but appear in two sets, one for each face, held close and bound firmly together by a two-strand twining of cedar (?) root. This twining sometimes passes around a single group of the warp-threads (two strands), again it

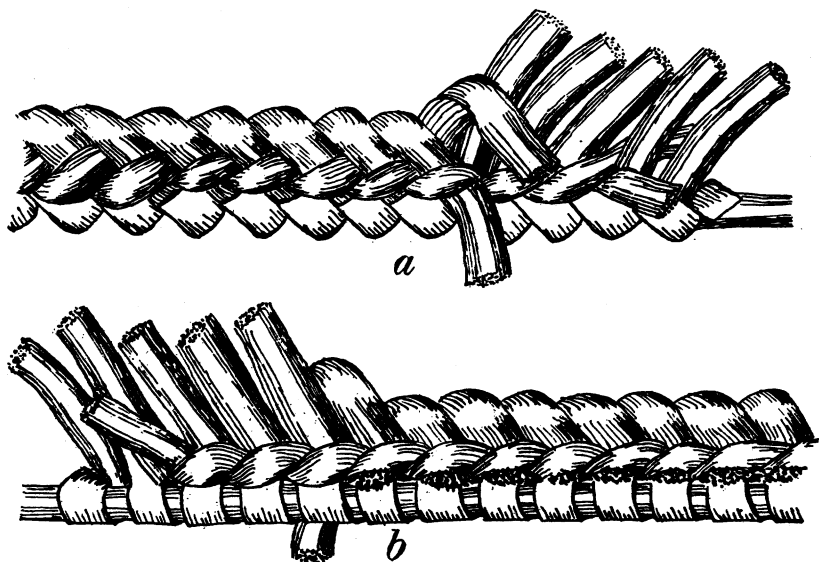


FIG. 32.—Exterior (a) and interior (b) of border on basket cup. (A. N. S. P. no. 11482. Enlarged 5 times.)

encloses two groups (four strands), two from each face, but it is always simple twining and does not differ upon the two faces of the basket. The warp-threads, after the completion of the work, have been trimmed close to this strong stitching, which is further enforced by eight rivet-like cords passed through the double weaving just above it and firmly knotted close upon each side. At each extremity of the warp series, and laid parallel with its strands, is a bundle of the same material, about eight-fold the size of the ordinary warp bundle. This is designed to become the lateral selvage of the basket.

The weft, commencing above the fundamental line of stitching,

¹ *Smithsonian Report for 1884*, pt. II, p. 301, pl. xx.

passes from left to right and is overlaid with bark and straw embroidery. Upon reaching the lateral selvage bundle, the woof-strands, together with the embroidery element, encircle the bundle, thus whipping it fast, and the twining recommences on the other face of the basket, but with a changed scheme of ornamentation.

The selvage at the top is preceded by a line of simple twining,¹ almost every stitch of which encloses two of the vertical warp-strands. As this circumplexion is covered by an embroidery of alternating stitches in brown and pale straw, a pretty beaded effect is produced below the braid-like selvage. This latter is an ordinary two-ply twining of cedar (?) root into which are caught the kindred warp-strands, mostly gathered in two-strand groups by the preliminary weft series. The warp bundles, now uniform in texture and thickness with the heavy woof-strands of the border, are turned outward, forward, and downward,—i. e., to the right as seen from the outer surface of the fabric—across the succeeding warp bundle, are caught under the final twining and pass to the interior surface, where the ends are turned down. As the woof-stitches slant upward to the right, and the warp, thus bent upon itself, is inclined to the right, a strong and pleasing border of false braid is produced.

The difficulty of determining the direction of the weave in a basket with the form and facial diversity of this wallet was further enhanced by the perverse turn of the warp-thread. Were the basket woven from right to left, as in the Tlingit berrying basket described above, the woof would have corresponded, in all other respects, with the two-strand twining, and the border presented the appearance of the border type 7 described by Mr Emmons. However, a most careful tracing of individual woof-threads, singled out by some peculiarity, was sufficient to distinguish definitely this border from its analogue among the Tlingit, and conclusively prove

¹ This appears to correspond in every respect with the first line of stitching at the bottom, but owing to the entire concealment of the inner aspect of the former beneath the turned-down ends of the warp, it is impossible to speak with certainty; but the fact that a shorter stitch, spanning a single warp-strand, occasionally intervenes, and that the stitches do not overlap, is all but positive evidence that no three-strand twining is herein concerned.

that the trend of the weave is from left to right, and the slant of the stitch aspiring.¹

The heavy lateral selvage bundles are cut off 38 mm. (*c.* 1½ inches) above the finished basket-top, and each wrapped around with the embroidery element for a finish and bent inward and downward, in a stiff curve, into the corner, where it is held in place by a strong stitch which passes through the weave from one face of the basket to the other, below the selvage, and is carried over the edge to be securely tied.

So old is this piece of native art that its colors have faded to tones of cream and brown. Especially is this true of the obverse, while the reverse, which has been less exposed to the light, retains somewhat of its black and yellow. Fortunately it is possible, by examination of the interior of the basket, to reconstruct its color scheme. There, the projecting bits of straw, carefully turned down, announcing the commencement of an overlay thread, or marking the beginning of a figure, show that the fabric was once radiant in hue—black, chestnut brown (or red?), golden brown, pale straw (or white?), and yellow that lies between a sulphur and a gosling-green.

With the exception of that design and portion of a design to be noted later, the embroidery or overlay is produced by a simple twining of two grass strands overlaying the basal fabric. Hence it presents to the eye a grass stitch with the same dip as the weft-strand which it completely conceals, and by which it is, in turn, concealed on the inner face of the fabric. In one or two instances the two-strand overlay is continuous across a figure and the single stitch in a third tint necessary to the design would seem to be superimposed upon the overlay.

The decorative scheme of the obverse (pl. xx, *a*) begins at the bottom with a band of chestnut brown. A black strand is introduced near the starting point of the first row, to alternate with the brown, but quickly dropped for the uniform tone. It reappears,

¹ Were additional evidence required, it is to be found in the characteristic forward creep of the warp-strands, where the bird-cage weave is used—best seen on the reverse face (pl. xx, *b*) and the crowding of the figures to the right hand on the obverse face (pl. xx, *a*).

however, near the end of the third, and is present across the whole width of the fourth, the final row of the band, giving it a beaded finish. Above this appears the pale, almost white, straw, which, crossed by five triple bands and framed to right and left by a border of brown, is to form the theoretical background for the figures.

The first division of this field contains three shapes, resembling our conventional representation of the feathered end of an arrow-shaft, alternating with two masks. The latter are set so low that the mouths impinge upon the border below. Eyebrows, eyes, nose, and mouth are worked in the pale natural straw, boldly outlined upon the brown surface of the octagonal mask. Horizontal bands of tattooing, or paint, cross the face—a series of black stitches, alternating with the lighter brown of the ground tone, extends across the mask at the central line of the mouth; a broad band, solid black in the upper and the lower row and barred within, diagonally upon the right cheek, vertically upon the left, marks the area between the basal line of the nose and the central line of the eye in the left-hand mask, while the face to the right shows between the solid boundaries only a single line of dots (alternating stitches); a double row of alternating black and chestnut-brown (red?) is intersected by the apices of the brows; above this the forehead shows another band, two rows deep, black and reddish strands being twined with the lighter brown in the lower and upper rows respectively to form a chevron pattern.

The other class of figures in this field, as seen in the example in the middle, can be best described as two horizontal rhombs, tending in opposite directions, and placed with their long sides in contact. These are in the lighter brown. The six smaller and vertical rhombs within this figure have been embroidered in the greenish yellow straw. The dark bands of facial decoration upon the masks reappear in corresponding bars across the brown portion of the arrow-feather also.¹ The representatives of this design, to the right

¹ This rhomb symbol is termed, in the present paper, the *arrow-feather*, for the sake of convenience only, not to imply any relation, in the mind of the basket-maker, between the motif and the feathered shaft of an arrow.

and left, have been modified by proximity to the lateral brown borders, the former losing its V-shaped indentation by blending with it, while the latter adds a fourth yellow rhomb to its upper series, and encroaches upon the margin so as to reach even to the selvage bundle.

The lowest field is terminated above by a triple band, dark (alternate brown and black) above and below, and pale straw in the middle line. To this succeeds an unbroken strip of the cream-colored embroidery, and above this is a second triple band, slightly broader than the first and with the central rows in greenish yellow.

Upon the second triple band rest the chins of the five masks of the second occupied field. They differ from the two above described in the possession of an ornamental cap, or head-band, in their greater breadth, and in the tattooing.¹ The row of paint, or tattooing, crossing the median line of the mouth, is in solid black; the band at the basal line of the nose is narrower; the stripe across the forehead commences immediately above the eye and reaches, in its breadth, the apices of the eyebrows. Three rows of stitching higher appears the head-band, vertically barred in cream and chestnut-brown.

Two triple bands, similar to the second and separated by an unbroken field of natural straw, intervene between the second and the third occupied field—a field differing in no way from the former, save in the tattooing (painting) of the masks. Here the lowest horizontal stripe lies between the upper line of the mouth and the base of the nose, and consists of two rows of solid color, bordering one of alternating dark and lighter brown. In the first or left-hand mask a similar band seems to have crossed the face athwart the eyes, but if such a beautification ever existed on the other four masks, it must have been in paler tones, since the corresponding stitches present an even lighter brown than the remainder of

¹ It may be worth while to note that the peculiar type of tattooing practised in western and northern America, a type for which I have suggested the term *kakina* (*Science*, N. S., XIV, p. 776), where a needle with pigment-charged thread is drawn under the outer cuticle, is obviously derived from the textile arts, and can most easily have been suggested by the practice of representing the earlier painted facial decoration in applied stitches upon basketry.

the surrounding surface. The whole of the forehead, from the root of the nose to the ornamental head-band, is occupied by a decoration in alternating stitches.

In all the twelve masks woven upon this remarkable basket, the eyebrows are strongly arched in the form of M. From the central depression depends the straight line of the nose. The eyes are hollow squares, sometimes (though that would appear accidental) occupied by a black stitch (the pupil?). The mouth in all of the upper series and in all save the last (the right-hand) of the middle group, is a parallelogram. In the case of the exception noted, only the central two of the four stitches on the base-line of the rectangle are present—an exact reversal of the method of representing the mouth in the first mask of the lowest row, where the upper, not the lower, lip assumes the pseudo-curve. In the other mask of this first row, the four corner stitches in the parallelogram have been omitted and the result is the technical oval. It seems as though the artist had experimented with this feature.

There is one marked peculiarity visible on the obverse face of the basket, that, while every individual figure, and indeed each feature, is created separately by short sections of straw, prominent bands, like the tattoo lines on the masks, reappear in the lateral brown borders. There is no obvious reason for their insertion there, nor indeed for this carrying over into the "arrow-feathering" design of these same bars. Expectancy, familiarity with another and more primitive technique, would appear to have brought this to pass. Either the basket-maker was most familiar with baskets of wrapped twined (bird-cage) weave, where the darker element, when brought to the surface, would inevitably show the black in such a row quite across the whole width of the fabric, or the basket was more or less freely copied from such an one.

Upon the triple band which bounds the third occupied field above, eight little brown "dogs" stand facing to the left. Their anatomy can be best understood by reference to plate xx, *a*. The last dog has apparently been induced, though not compelled, to carry his tail aloft, by the proximity of the lateral brown border. A curious change of weave occurs in the lower row of weft entering

into the bodies of the dogs, and the row immediately preceding it. It is no longer a matter of two-strand twining, overlaid by a two-strand false embroidery, but of three-strand wrapped twined weaving. In this weave a single cedar (?) root weft-strand (i. e., the coil or secondary warp) passes along behind the vertical warp threads, to which it is lashed by two grass strands—one light, one dark. In the upper of these two rows the light grass thread starts off in simple, wrapped twined weaving, with characteristic stitches, diagonal on the right side and vertical on the wrong. After some ten stitches the dark thread is introduced, and the same wrapping is continued with it, the first, or light, binder being carried along on the back quite free until the end of the dog's body is reached, when the light thread is brought to the front, and the process repeated with the dark grass loosely trailed in the rear. The preceding weft series does not present so simple a technique. The spaces between the dogs' legs break the continuity of the dark weave, so that alternating bits of color are desired in parts. Here the dark thread, after its introduction, makes but a single turn on the face of the basket and then gives place to the light strand, which is carried up diagonally at the back across both root woof and warp and brought through to the fore. This lattice weaving continues so long as alternations of the two colors are required, but as soon as the pale field is regained it is replaced by the ordinary bird-cage weave in the light straw, with the brown strand laid free on the inner side of the basket. Above these two rows, the ordinary twined weft and twined overlay recontinue to the selvage.

The reverse face of the basket (pl. xx, *b*) bears scant resemblance to its obverse. True, the creamy straw forms the apparent background here also, the lateral brown borders skirt the selvage bundles, and the procession of little "dogs" crosses the top, but there the likeness ends.

Above the fundamental cedar (?) root stitching, the two-strand twining commences, with two-ply twined overlay in brown. This row is followed by two lines of yellow and brown stitches alternating, and these by two more in yellow and black, and a fifth in yellow and brown. A band of brown with black strands of varying lengths

appearing irregularly in alternating stitches is topped by three rows in pale straw. After two series of solid brown stitches—the commencement of the first ornamental band—the weave changes abruptly. The decoration is a series of yellow triangles, each with its apex in the center of the base of its right-hand neighbor, and to produce this design the basket-maker has resorted to the peculiar combination of the wrapped twining with the twined weave, known as *tee*.¹ Three rows of this interesting adaptation of technique to figure border two lines of ordinary wrapped twined weaving above and below, and then the band is completed by two rows in the



FIG. 33.—Inside aspect of part of the upper ornamental band and border of the basket-wallet. (Reduced.)

usual twining with the two-strand twined overlay in brown (cf. fig. 33).

A narrow band of brown breaks the continuity of the pale straw two rows above the first decorative stripe. The second ornamental band, broader than the first, contains a regular parallel arrangement of step-like lines in brown and yellow. Stitches of black alternating with the brown along the edges and here and there throughout the figure give a twilled effect to the design.

After a short interval a third ornamental band has been woven in similarly to the first, in the substituted combination weave. It is, however, broader, and its triangles point to the left. The motif of the second decorated band recurs in the fourth, while the fifth corresponds with the third. A peculiarity of the three ornamental bands with the triangular motif is the rectangle upon which the apex of the foremost triangle impinges. This is obviously an essential part of the design, since it occurs at the end of the lower

¹ The horizontal strand, or coil-warp, in the fabric here considered, as well as in the basket-cup described above, lies behind the warp-threads, not before them, as with the Pomo creations.

series, which points to the right, and at the starting of the middle and upper series which are directed to the left in all cases there was sufficient space to weave another triangle.

The procession of little "dogs," standing upon this last band, all face to the right, except the last to be completed. This remarkably lean individual, with tail in air, confronts the foremost of the advancing line. These little animals are not so realistic as those upon the obverse. The four rows of stitches which enter into their stick-like legs are in the combined wrapped twined and *tee* weaves (fig. 32). The regular two-strand twining with two-strand twined false embroidery recommences in the body and continues to the selvage.

The form of this basket-bag or wallet plainly shows its relationship to the flat skin pouch, from which it would appear to have been derived. Mr Teit has described bags of this shape from the Thompson River Indians (Salishan stock) which are of an even more primitive type, being made from a piece of matting, folded over, and sewed up at both sides with a piece of deerskin.¹ The wallet accredited to the Nez Percés, and figured by Professor Mason, gives a further step in the evolution of this form. There, the warp-strands of the sides are continuous across the lower edge of the bag, just as in the Thompson mat-pouch, but the weaving commences at its bottom in the center of the warp-threads, and after these have been firmly tied together and bent upward, the twining proceeds round and round the fabric.

In the bag herein described it is difficult to tell whether the change is an improvement or the reverse. The advantages of the strong, continuous warp over the parallel structure with the rough ends trimmed close to the twining are, perhaps, more than balanced by the additional stay of the rivet-like cords, and a freedom from the danger of breakage due to the sharp bend of the warp-strands.

This type of flat basket, so little adapted in form to primitive household needs, does not seem, despite its simplicity of outline, to be widely distributed. It could have come into vogue only as the

¹ James Teit, The Thompson Indians of British Columbia, *Mem. Amer. Mus. Nat. Hist.*, vol. II, p. 201, fig. 149.

successor of the skin receptacle, and at such points where skins were more difficult to obtain than the vegetable fibers, so cunningly and laboriously wrought into its structure.

It would appear to be most frequent among tribes of Salishan and Shahaptian stocks. As noted above, the Thompson River Indian basket-wallet is a modified mat, and another Salishan tribe, the Quinaielt, weave their wallets with a horizontal warp and vertical weft,¹ thus showing, in yet another way, the relationship of this form to the mat and earlier skin bag. The Shahaptian wallet is built upon quite another principle, the basket being commenced in the middle of the line of warp-threads, continuous over both faces of the basket, whereafter it is woven round in the usual way.² The one here described is, I believe, peculiar in its structure—the treatment of the trimmed and riveted bottom, and the lateral selvage bundles, both of which characters tend to reduce its capacity and general usefulness. The lateral selvage has the appearance of copying in textile the leather binding of such a wallet as the Thompson Indians construct.

In its weave it is also unusual: the two-strand twining whereby the greater part is built up is of wide distribution, but the treatment of the overlay is not that of the Salishan tribes, which possess wallets resembling this. The Thompson Indians wrap the decorative filaments about both elements of the twine, thus revealing the design upon the interior.³ On the other hand, the Shahaptian Nez Percés do not carry the embroidery thread to the interior, but pass it beneath the exterior aspect of the weft-stitch.⁴ In the Academy's basket, however, the decorative element, while not appearing on the interior, save as free ends marking the beginning and completion of a figure, yet passes the stitch behind the vertical warp-strands but is concealed by the stitch of the fabric along which it lies.

Of the other weaves that enter into this basket, the wrapped

¹ Mason in *Ann. Rep. Smithsonian. Inst.*, 1902, U. S. N. M., pp. 264 and 435.

² *Ibid.*, pp. 437-438.

³ *Ibid.*, p. 325, pl. 78, figs. 1-4.

⁴ *Ibid.*, p. 438 and fig. 139.

twining is a technique of limited distribution, being known only from Washington and the ocean side of Vancouver Island, among the Wakashan, Salishan, and Shahaptian peoples.¹ The *tee*, or lattice-twined, weave, is yet more circumscribed, having been reported only from the Pomo Indians of California. A characteristic of the Pomo *tee* weave is the location of the horizontal or coil-warp in front of the vertical or radial warp,² while in the wallet and the cup here described it lies on the interior of the basket. As this is a trait of the wrapped twined weaving which builds up the major part of the cup and certain bands of the wallet, the relative positions of the two warp elements have been conditioned by the latter weave. In fact, the lattice weave may be regarded, in this instance, as evolved out of the wrapped twined weave by the action of decorative necessities.

The type of border exhibited by this basket, I have nowhere seen figured or described. It has a certain affinity to that of the Quinaielt wallet collected by Mr C. C. Willoughby and described by Professor Mason,³ but it is not identical, the direction of the weave being reversed, and the warp-strand bent *forward* (not backward) *in front* of its neighbor (not behind), *under* (not over) the stitch of the two-strand twining, before turning inward. This border will be seen to be identical with that of the cylindrical basket cup described above, with the exception that, in the latter, the warp-strands are used singly, while in the former they are usually grouped in pairs and treated as a unit.

Turning to the designs represented on the wallet, the "arrow-feather" figure may be considered as a possible variant of the ornamental bands upon the cup. The faces or masks are characteristic Chinookan in presentation,⁴ though they differ somewhat from those shown on Wasco baskets, the eyes being placed horizontally, not diamond-wise.⁵ The horizontal bands of triangles upon the reverse face of the wallet occur as a motif, but placed

¹ Mason in *Ann. Rep. Smithsonian. Inst.*, 1902, U. S. N. M., pp. 235-236.

² *Ibid.*, p. 237.

³ *Ibid.*, p. 264.

⁴ *Ibid.*, p. 439, pls. 168, 169.

⁵ The University of Pennsylvania possesses, I believe, a Nez Percé wallet covered with octagonal faces, but I have not been able to examine it.

vertically, on Salishan and Shahaptian basketry,¹ as upon that of certain unrelated California tribes. The two bands of parallel stepped lines suggest the shaman's hat pattern of the Tlinkit. Simple as is the motif, and frequent of occurrence, upon the basketry of other people, it is almost invariably presented in aspiring series. The little animals that trail around the top of this wallet, and of the cup also, are characteristic of the textile art of the Skokomish and other Salishan tribes, as the Clallam and the Quinaieilt.² The design is also known to the Klikitat, a Chinookan tribe formerly living near the Dalles of the Columbia.³

It will thus be seen that, in peculiarities of weave and of border, the basket wallet and cup agree, as also in the arrangement of the decoration in horizontal bands, and partly in the motives employed. There can be little question that they emanate from the same tribe. The cup is recorded as from the Pacific coast; the wallet has long been without data. It was formerly assigned to the Pacific islands and placed with Hawaiian ethnographica. This, and the silence of the old accession lists regarding its acquisition by the Academy, would seem to indicate the probability that it came with the Nuttall and Townsend collections. Owing to the several voyages of Nuttall and Townsend between the mouth of Columbia river and the Hawaiian islands, and thence around the Horn, some specimens of their collecting have been found erroneously assigned, which makes even greater the probability that the wallet was also part of the treasure trove of this expedition.

The travels of these scientific explorers were confined, in the West, to the valley of the Columbia, with brief trips into its tributaries and along the contiguous coast; there they met with natives of the Wallawalla, Nez Percé, Chinook, Klikitat, Kallapooyah, Cowlits, and Cayuse tribes.⁴ It was with the Chinook, however, that they were longest and most intimately associated.

¹ Mason in *Ann. Rep. Smithsonian. Inst.*, 1902, U. S. N. M., p. 324, pl. 76; p. 438, pl. 161.

² *Ibid.*, p. 436, pls. 51, 162, 164, 165.

³ The American Museum of Natural History possesses a Klikitat basket bearing this design (no. 15508), collected by Dr Livingston Farrand in 1900.

⁴ John K. Townsend, *Narrative of a Journey across the Rocky Mountains to the Columbia River, and a Visit to the Sandwich Islands, Chili*, etc., 1839.

It is evident that, in the textile art, Chinookan, Salishan, and Shahaptian peoples have shared with one another, and from present knowledge it is impossible to assign the basket wallet and cup to any given tribe. They are, in a sense, *sui generis*, and yet essentially a product of the lower Columbia valley.

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